

Work Order ID 57993

April 21, 2010 10:40:34 AM



Page 1

Item ID: D4039-3

Revision ID:

Item Name: Aft Bracket

Start Date: 21/04/2010 Start Qty: 2.00

Required Date: 30/04/2010 Req'd Qty: 2.00

Reference:

Approvals: Process Plan:

Accept



Setup Start



Stop



Cust Item ID:

Customer:

QC:

Date:

Tooling:

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4039

A

100



Waterjet

FLOW CNC Waterjet

Date:

SPC (Y/N):

Date:

B 10-4-24

(1)

110



HAAS I

HAAS CNC vertical machine #:

Memo

MACHINE AS PER FOLIO FA881 AND DWG
FOLIO REV: AA

DWG REV: A

DEBURR

0.00

0.00

S.F 10/04/27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D4039-3 PAR #: Fault Category: prod eng error. NCR: Yes No DQA: Date: 10/06/02
 Resolution: Accepted Disposition: as is QA: N/C Closed: Date: 10/11/24

WORK ORDER NON-CONFORMANCE (NCR)								
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10/04/27	110	Holes of .191 ^{.005} _{.001} are oversize by .008" over tolerance they are at .204." R.C. Wrong Drill on folio.	MF 10/04/27 098042	ACCEPTABLE MF 10/04/27	SL 10/04/27 098042	SL 10/04/28	MF 10/04/27 098042	MF 10/05/05
		R.C. Wrong Drill on folio.		→ Fix Drill And ADD copy off folio as ref.				S 10/05/05
			✓	Eng Error See ATTACHED.	✓ 10.05.05		✓	

NOTE: Date & initial all entries

Work Order ID 57993

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Page 2

Item ID: D4039-3

Accept



Setup Start



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Stop



Start Date: 21/04/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 30/04/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
Description

120



QC

Quality Control

Set Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

0.00

SF 10/04/07

0.00

130



QC

Quality Control

QC 8

0.00

SL 10/04/28

0.00

140



HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

M 10/04/28

0.00

1 Ø

Work Order ID 57993

April 21, 2010 10:40:34 AM



Page 3

Item ID: D4039-3

Accept



Setup Start



Revision ID:

Item Name: Aft Bracket

Stop



Start Date: 21/04/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 30/04/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

150



Powdercoat

Powder Coating

Operation
DescriptionM1114207
White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum
START: 8:15AM
Memo TEMP: 370°F
FLOOR: 8:45AMSet Up/
Run Hours

0.00

Draw
Number

10104129

Draw
Rev.

10

Plan
Code

10

Accept
Qty

0

Reject
Qty

0

Reject
Number

0

Insp.
Stamp

(1) d

160



QC

Quality Control

QC3- Inspect Part Finish

0.00

0.00

⇒ m-t wlow/29/10

170



Packaging

Packaging

Identify as per dwg & Stock Location: _____

0.00

0.00

10-4-29 sf (10)



Work Order ID 57993

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Page 4

Item ID: D4039-3

Accept



Setup Start



Revision ID:

Item Name: Aft Bracket

Stop



Start Date: 21/04/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 30/04/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

**Sequence ID/
Work Center ID**

180



QC

Quality Control

**Operation
Description**

QC21- Final Inspection - Work Order Release

**Set Up/
Run Hours**

0.00

**Draw
Number****Draw
Rev.****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp**10/1/24 ~~to 10/1/24~~ *MF*

10-1-24

POSITIVE RECALL

EFFECTIVE 10-06-02 AUTH J
EASLED J DATE 10-1-24

Picklist Print

April 21, 2010 10:40:33 AM

Page 1

Work Order ID: 57993



Parent Item: D4039-3



Parent Item Name: Aft Bracket

Start Date: 21/04/2010

Required Date: 30/04/2010

Comments: Ipp Rev:A New Issue 09-12-15 JLM Verified By:EC

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M6061T6B1.000X15.00 0		Purchased		No		100	f	6.5000	6.3158			

6061-T6 Bar 1.00 x 15.00



10-4-26

6061-T6 Bar 1.00 x 15.00

D6102-005
JUL 10.05.04

<u>Warehouse</u> <u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
Main Warehouse		
MAT07	6.5	
9544	6.5	

(1)

\$33680

DART AEROSPACE LTD	Work Order:	57993
Description: Bracket	Part Number:	A4039-3
Inspection Dwg: A4039 Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

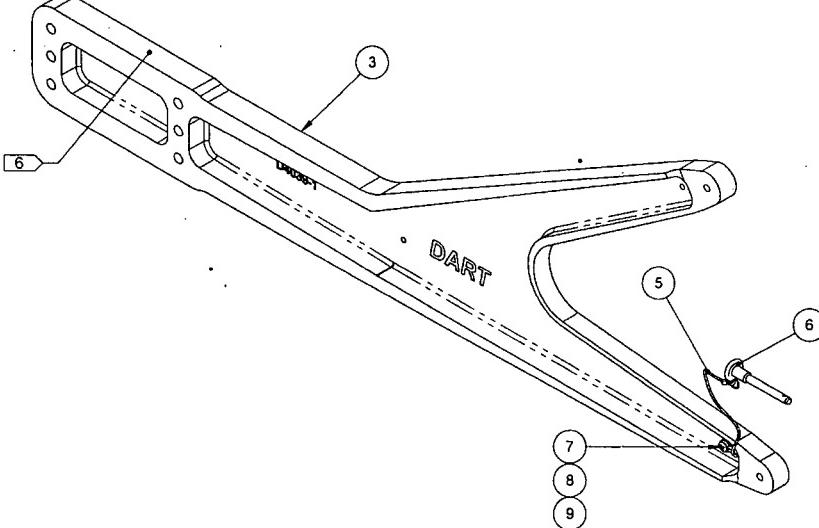
X First Article Prototype

Measured by:	<u>S.B</u>	Audited by:	<u>SL</u>	Prototype Approval:	N/A
Date:	10/04/27	Date:	10/04/28	Date:	N/A

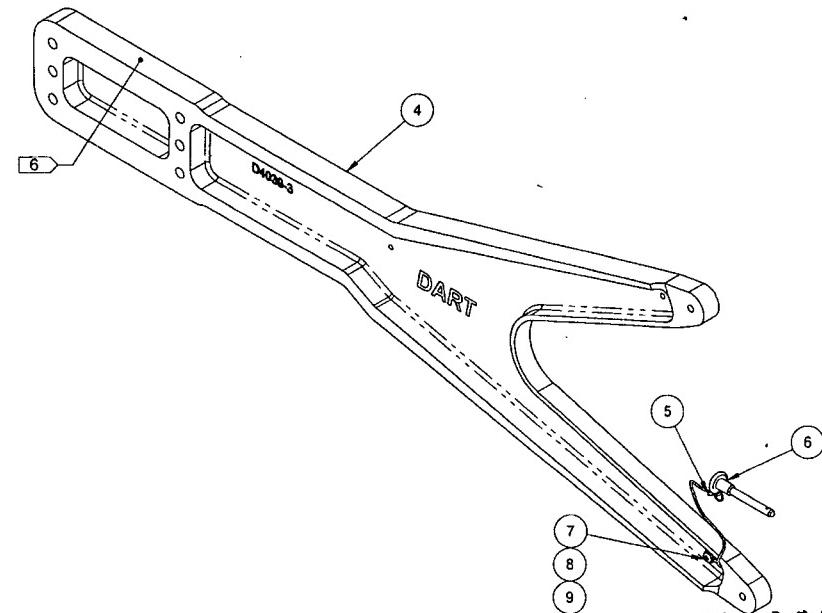
Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

ITEM NO.	QTY. -041	QTY. -043	PART NUMBER	DESCRIPTION
1	X		D4039-041	FWD BRACKET ASSEMBLY
2		X	D4039-043	AFT BRACKET ASSEMBLY
3	1		D4039-1	FWD BRACKET
4		1	D4039-3	AFT BRACKET
5	1	1	D2690-6	LANYARD
6	1	1	BLRS-010	PIP PIN
7	1	1	MS27039-1-11	SCREW
8	1	1	MS21042L3	NUT
9	3	3	NAS1149D0363J	WASHER

w/o 57993



D4039-041 FWD BRACKET ASSEMBLY



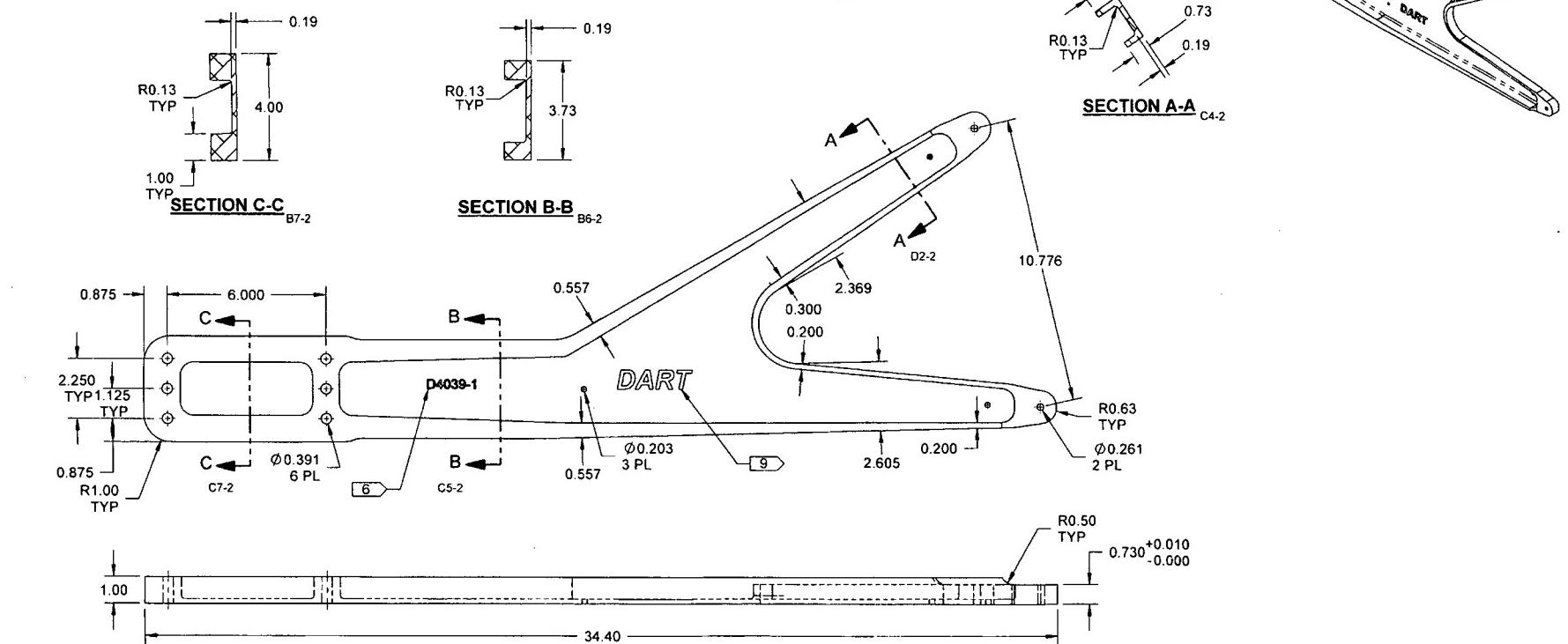
D4039-043 AFT BRACKET ASSEMBLY

RELEASED
2010-04-14

A	NEW ISSUE	09.12.14
REV.	DESCRIPTION	BY DATE
DESIGN	AS	DART AEROSPACE LTD
DRAWN	AS	HAWKESBURY, ONTARIO, CANADA
CHECKED	AS	DRAWING NO. REV. A
MFG. APPR.	AS	D4039 SHEET 1 OF 3
APPROVED	AS	TITLE SCALE
DE APPR.	AS	BRACKET NTS
DATE	09.12.14	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD

8 7 6 5 4 3 2 1

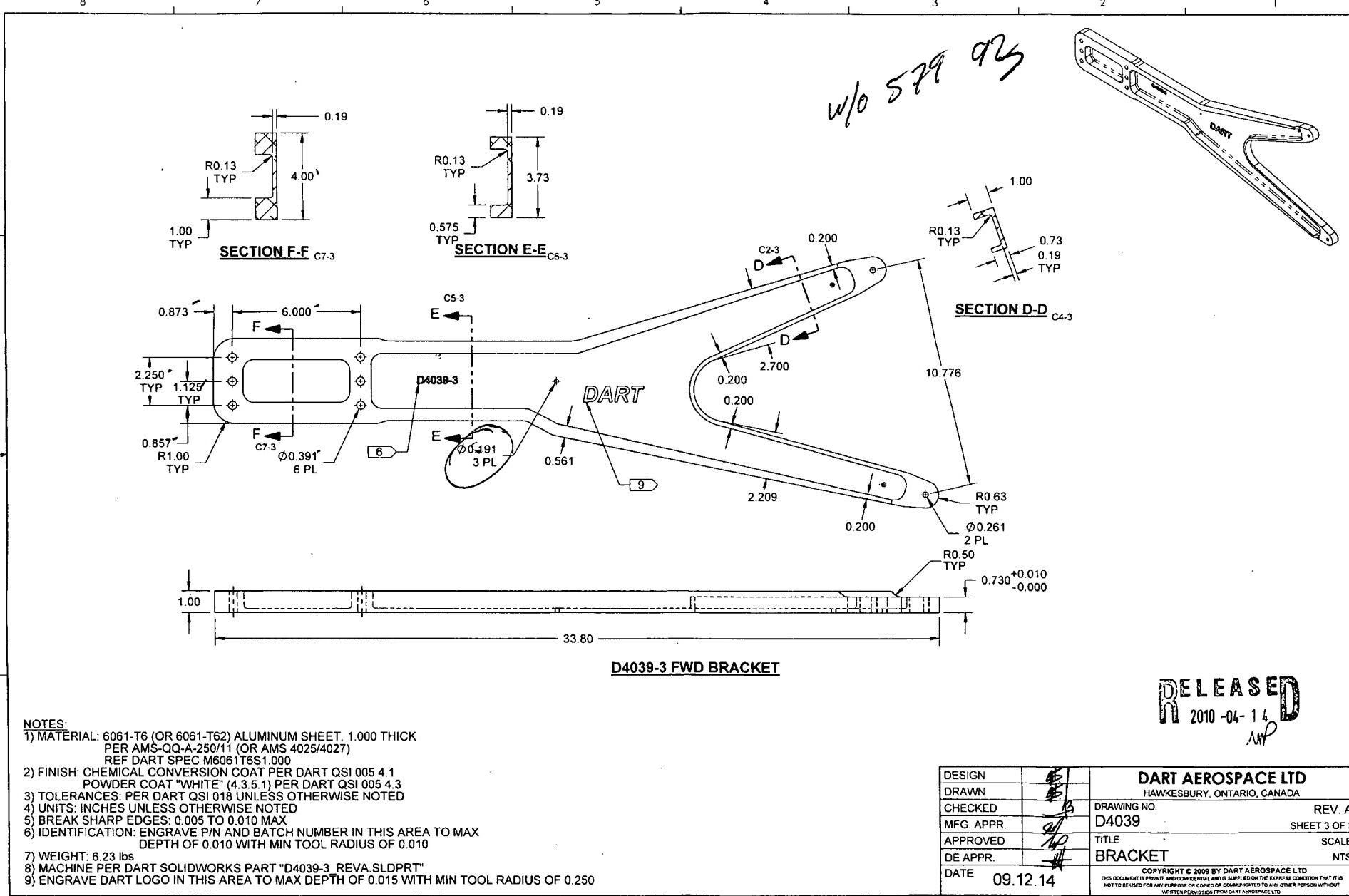
w/o S7993

**D4039-1 FWD BRACKET**RELEASED
2010-04-16
by

DESIGN	<i>51</i>	DART AEROSPACE LTD
DRAWN	<i>51</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>BS</i>	DRAWING NO. REV. A
MFG. APPR.	<i>SP</i>	D4039 SHEET 2 OF 3
APPROVED	<i>SP</i>	TITLE SCALE
DE APPR.	<i>SP</i>	BRACKET NTS
DATE	09.12.14	

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8 7 6 5 4 3 2 1



RELEASED
2010-04-14
[initials]

Mike Petsche

From: David Shepherd [dshepherd@dartaero.com]
Sent: April 27, 2010 3:49 PM
To: 'Mike Petsche'
Subject: RE: Sent from Snipping Tool
Attachments: image001.png

Mike,

This is an acceptable deviation.

David

From: Mike Petsche [mailto:mpetsche@dartaero.com]
Sent: Tuesday, April 27, 2010 1:45 PM

To: 'David Shepherd'
Subject: Sent from Snipping Tool

Holes circled in red. New dwg says dia: 0.191. Old dwg has the them at 0.203

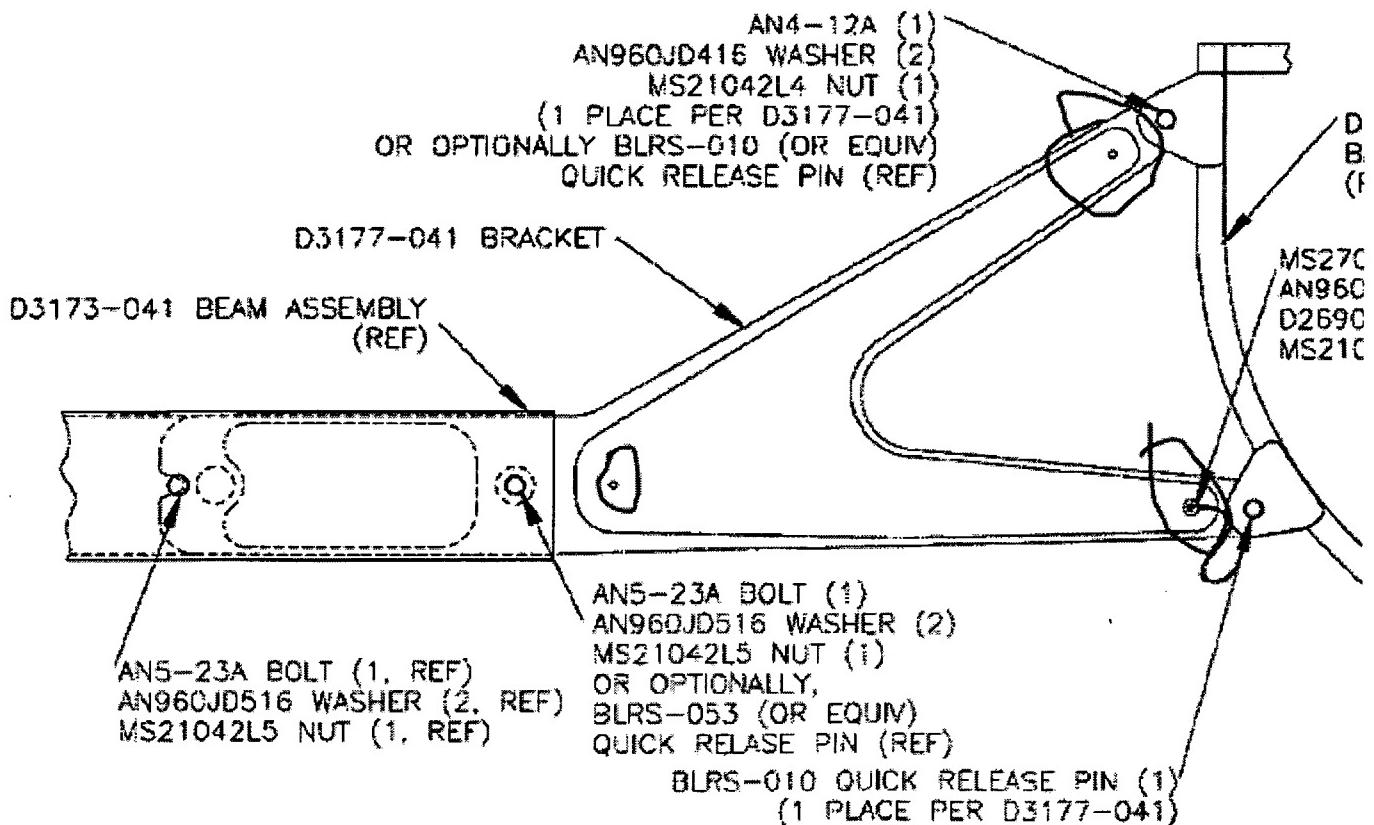


Figure 3 – D3177-041 Fwd Bracket Attachmen

Jean-Luc Menard

From: Harvey Siemens [hsiemens@dartaero.com]
Sent: April 28, 2010 11:27 AM
To: 'Jean-Luc Menard'; 'Mike Petsche'
Cc: 'Marc Bellavance'
Subject: RE: D4039 Rev. PB1

Thank you all for your quick reply. The rest of the paperwork will be coming your way shortly.

JL

I think that the hole that I dimensioned at 0.191 was the only hole in the model that was that size. Weird since the model is based on the "other" Y brackets.

Regards,

Harvey Siemens

Mechanical Designer
DART Aerospace Ltd.

P: 403-717-0328
F: 403-717-1288
E: hsiemens@dartaero.com
W: www.dartaero.com

M: 1060 McTavish Road NE, Calgary, Alberta, T2E 7G6

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From: Jean-Luc Menard [mailto:jmenard@dartaero.com]
Sent: Wednesday, April 28, 2010 9:17 AM
To: 'Harvey Siemens'; 'Mike Petsche'
Cc: 'Marc Bellavance'
Subject: RE: D4039 Rev. PB1

Looks good, I don't know what happened, the original parts made in December were both drilled at .203"?????
As long as its fixed,

Thx
JLM

From: Harvey Siemens [mailto:hsiemens@dartaero.com]
Sent: April 28, 2010 11:11 AM
To: Mike Petsche
Cc: 'Marc Bellavance'; Jean-Luc Menard
Subject: D4039 Rev. PB1

Hey guys,

Talked with JL this morning and he raised an inconsistency between the D4039-1 and the -3 regarding the hole

sizes. This discrepancy has been corrected. Since you were the original reviewers, I am forwarding the prelim drawing to you. Thank you for your time in going over the attached drawing. Let me know if there are any other details that need to be changed or adjusted.

If everybody is good with it (let me know) I'll revise the MDL and issue an ECN. David will approve shortly after that and you'll have an updated drawing.

JL

Thought about Section A-A and D-D and the 0.73 dimension that is shown there vs the 0.730 +0.010/-0.000 dimension shown in zone B3. The B3 dimension is for the lug at the end while the section view dimension is just for that shorter leg of the beam. I think the way we have it dimensioned is correct. We want to maintain a tight tolerance on the lug but the shorter leg portion is not so critical. Let me know if that explanation doesn't make sense.

Regards,

Harvey Siemens

Mechanical Designer
DART Aerospace Ltd.

P: 403-717-0328

F: 403-717-1288

E: hsiemens@dartaero.com

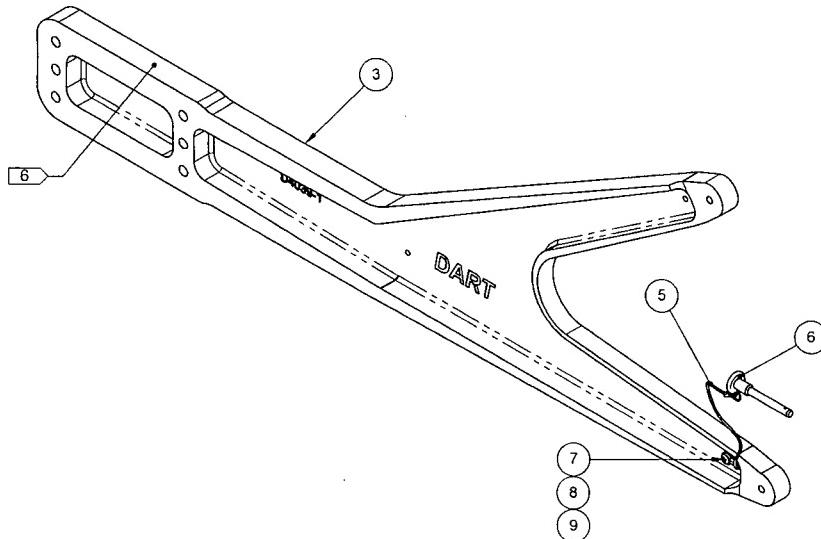
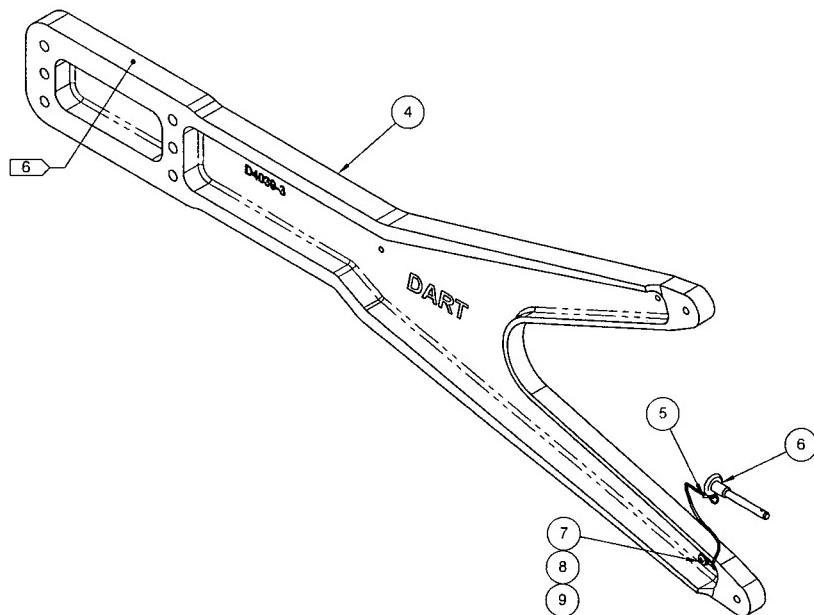
W: www.dartaero.com

M: 1060 McTavish Road NE, Calgary, Alberta, T2E 7G6

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8 7 6 5 4 3 2 1

ITEM NO.	QTY. -041	QTY. -043	PART NUMBER	DESCRIPTION
1	X		D4039-041	FWD BRACKET ASSEMBLY
2		X	D4039-043	AFT BRACKET ASSEMBLY
3	1		D4039-1	FWD BRACKET
4		1	D4039-3	AFT BRACKET
5	1	1	D2690-6	LANYARD
6	1	1	BLRS-010	PIP PIN
7	1	1	MS27039-1-11	SCREW
8	1	1	MS21042L05	NUT
9	3	3	NAS1149D0363J	WASHER

D4039-041 FWD BRACKET ASSEMBLYD4039-043 AFT BRACKET ASSEMBLY

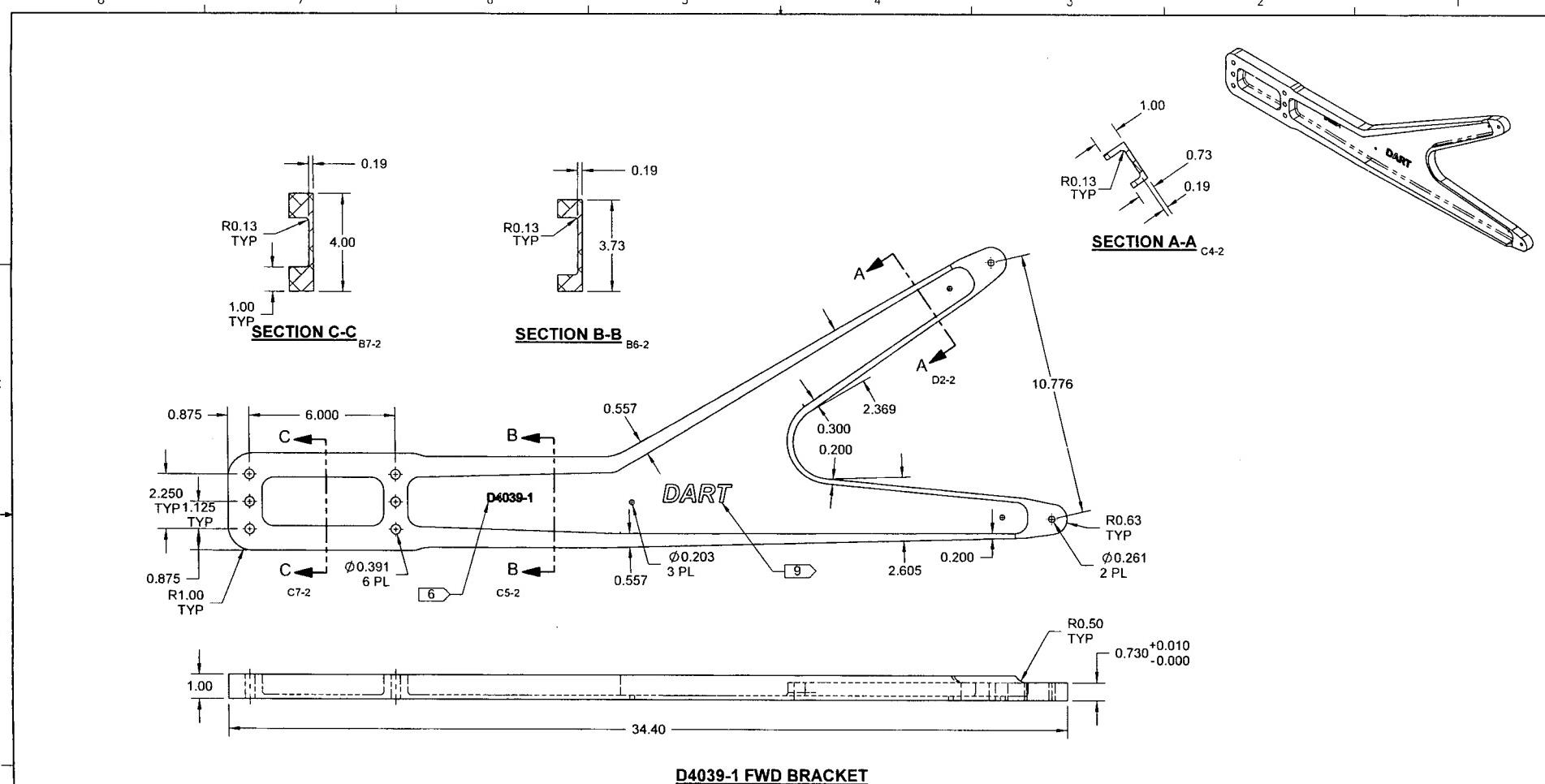
NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4039-041/043" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: N/A

PRELIMINARY ISSUE

10.04.28

PB1	REVISE HOLE SIZE ON D4039-3 FROM 0.191 TO 0.203, ZN B6-3		10.04.28
A	NEW ISSUE	HS	09.12.14
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKSLEY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PB1
MFG. APPR.		D4039	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BRACKET	NTS
DATE	10.04.28	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



D4039-1 FWD BRACKET

NOTES:

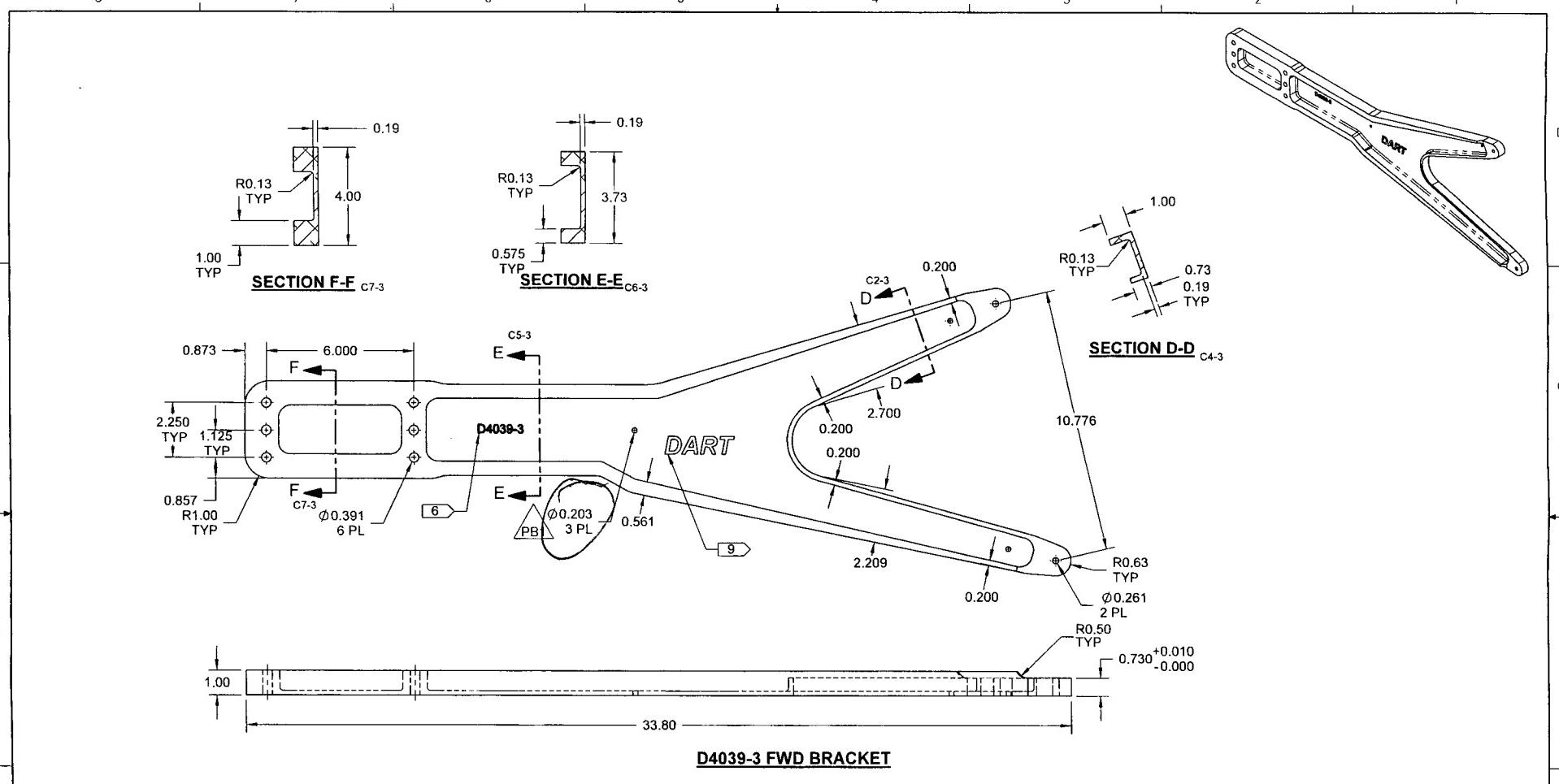
- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 1.000 THICK PER AMS-QQ-A-250/11 (OR AMS 4025/4027)
REF DART SPEC M6061T6S1.000
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010 WITH MIN TOOL RADIUS OF 0.010
- 7) WEIGHT: 6.64 lbs
- 8) MACHINE PER DART SOLIDWORKS PART "D4039-1_REV.A.SLDPRT"
- 9) ENGRAVE DART LOGO IN THIS AREA TO MAX DEPTH OF 0.015 WITH MIN TOOL RADIUS OF 0.250

PRELIMINARY ISSUE

10.04.28

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD
DRAWN	<i>[Signature]</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	
MFG. APPR.	<i>[Signature]</i>	DRAWING NO. REV. PB1
APPROVED	<i>[Signature]</i>	D4039 SHEET 2 OF 3
DE APPR.	<i>[Signature]</i>	TITLE SCALE
DATE	10.04.28	NTS

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NOTES:
1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 1.000 THICK
PER AMS-QQ-A-250/11 (OR AMS 4025/4027)
REF DART SPEC M6061T6S1.000

2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: ENGRAVE P/N AND BATCH NUMBER IN THIS AREA TO MAX
DEPTH OF 0.010 WITH MIN TOOL RADIUS OF 0.010

7) WEIGHT: 6.23 lbs

8) MACHINE PER DART SOLIDWORKS PART "D4039-3_REVA.SLDprt"

9) ENGRAVE DART LOGO IN THIS AREA TO MAX DEPTH OF 0.015 WITH MIN TOOL RADIUS OF 0.250

PRELIMINARY ISSUE

10.04.28

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD
DRAWN	<i>[Signature]</i>	HAWKSBURY, ONTARIO, CANADA
CHECKED	<i>[Signature]</i>	
MFG. APPR.	<i>[Signature]</i>	DRAWING NO. D4039
APPROVED	<i>[Signature]</i>	REV. PB1
DE APPR.		TITLE SHEET 3 OF 3
DATE	10.04.28	SCALE NTS

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